

Claims

1. A stator in a rotating electric machine, the stator comprising;

a stator core provided with plural slots in an inner peripheral surface: and

a stator winding disposed inside each of the plural slots, wherein;

each slot of the plural slots has a slot peripheral wall and a slot opening that opens in the inner peripheral surface:

the slot peripheral wall of each slot has a slot bottom wall and a pair of slot side walls opposing to each other and continuing to the slot bottom wall:

the slot peripheral wall is covered with an insulation coating made of an electrical insulation material:

the insulation coating is formed over continuously from the slot bottom wall to the pair of slot side walls:

a pair of holding grooves opposing to each other is formed in the insulation coating on the pair of slot side walls at the vicinity of the slot opening:

groove walls of the holding grooves in the pair are formed in the insulation coating: and

an electrical insulation member for closing the slot opening is inserted into and held between the holding grooves in the pair.

2. The stator in the rotating electric machine according

to Claim 1, wherein;

each of the holding grooves in the pair is formed by cutting out the insulation coating on the slot side walls in the pair.

3. The stator in the rotating electric machine according to Claim 2, wherein;

a depth of each of the holding grooves in the pair is smaller than a thickness of the insulation coating.

4. The stator in the rotating electric machine according to Claim 1, wherein;

each groove wall of the holding grooves in the pair has a groove bottom wall and a pair of groove side walls opposing to each other: and

the groove bottom wall and the pair of groove side walls are formed in the insulation coating.

5. The stator in the rotating electric machine according to Claim 4, wherein;

a clearance is formed between one of the groove side walls in the pair and the electrical insulation member.

6. The stator in the rotating electric machine according to Claim 4, wherein;

a clearance is formed between the groove bottom wall and the electrical insulation member.

7. The stator in the rotating electric machine according to Claim 4, wherein;

the inner one of the groove side walls in the pair positioned on an inner side of each slot is formed to tilt in a depth direction of each slot.

8. The stator in the rotating electric machine according to Claim 1, wherein;

the stator winding has a width in a circumferential direction smaller than an interval between the slot side walls in the pair: and

the width in the circumferential direction is smaller than a width of the slot opening in the circumferential direction.

9. The stator in the rotating electric machine according to Claim 1, wherein;

the stator winding includes plural winding members inside each slot:

each winding member of the plural winding members has a width in a circumferential direction smaller than an interval between the slot side walls in the pair and a thickness in a radius direction smaller than the width in the circumferential direction: and

the plural winding members are disposed in line along the pair of slot side walls.

10. The stator in the rotating electric machine according to Claim 1, wherein;

plural teeth portions of the stator core are formed between respective slots:

each teeth portion of the plural teeth portions has a hanging portion that hangs out in a circumferential direction at the vicinity of the inner peripheral surface of the stator core:

the pair of slot side walls extends onto the hanging portions:

the insulation coating extends onto the hanging portions: and

the pair of holding grooves is formed in the insulation coating on the hanging portions.